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PTO/SB/81 (02-01)

Approved for use through 10/31/2002. OMB 0651-0035

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## POWER OF ATTORNEY OR AUTHORIZATION OF AGENT

Application Number	
Filing Date	
First Named Inventor	Martin J. Murphy
Title	Lightning Detection*
Group Art Unit	
Examiner Name	
Attorney Docket Number	6059.12004

I hereby appoint:

☐ Practitioners at Customer Number  →  
**OR**

☒ Practitioner(s) named below:

Name	Registration Number
William A. Birdwell	27,181
Antonio R. Durando	28,409
Garth E. Janke	40,662
Gavin J. Milczarek-Desai	45,801

Place Customer  
Number Bar Code  
Label here

as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the correspondence address for the above-identified application to:

☐ The above-mentioned Customer Number.

**OR**

☐ Practitioners at Customer Number  →

Place Customer  
Number Bar Code  
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**OR**

<input checked="" type="checkbox"/> Firm or Individual Name	William A. Birdwell		
Address	Durando Birdwell & Janke, P.L.C.		
Address	2929 E. Broadway Blvd.		
City	Tucson	State	AZ
Country	USA		
Telephone	520-881-9442	Fax	520-881-9448

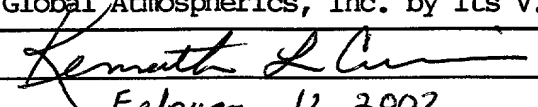
I am the:

☐ Applicant/Inventor.

☒ Assignee of record of the entire interest. See 37 CFR 3.71.

Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96).

### SIGNATURE of Applicant or Assignee of Record

Name	Global Atmospherics, Inc. by its V.P. of R&D, Kenneth L. Cummins
Signature	
Date	February 12, 2002

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ forms are submitted.

Burden Hour Statement: This form is estimated to take 3 minutes to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

\*and Data Acquisition System

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**DECLARATION FOR UTILITY OR  
DESIGN  
PATENT APPLICATION  
(37 CFR 1.63)**

☒ Declaration  
Submitted  
with Initial  
Filing

OR

☐ Declaration  
Submitted after Initial  
Filing (surcharge  
(37 CFR 1.16 (e))  
required)

Attorney Docket Number	6059.12004
First Named Inventor	Martin J. Murphy
<b>COMPLETE IF KNOWN</b>	
Application Number	/
Filing Date	
Art Unit	
Examiner Name	

As the below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original and first inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

LIGHTNING DETECTION AND DATA ACQUISITION SYSTEM

(Title of the Invention)

the specification of which

☒ is attached hereto

OR

☐ was filed on (MM/DD/YYYY) [ ] as United States Application Number or PCT International

Application Number [ ] and was amended on (MM/DD/YYYY) [ ] (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.

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## DECLARATION — Utility or Design Patent Application

Direct all correspondence to: <input type="checkbox"/> Customer Number <span style="border: 1px solid black; display: inline-block; width: 150px; height: 20px; vertical-align: middle;"></span> OR <input checked="" type="checkbox"/> Correspondence address below	
<b>Name</b> William A. Birdwell Durando Birdwell & Janke, P.L.C.	
<b>Address</b> 2929 E. Broadway Blvd.	
<b>City</b> Tucson	<b>State</b> AZ
<b>ZIP</b> 85716	
<b>Country</b> US	<b>Telephone</b> 520-881-9442
<b>Fax</b> 520-881-9448	
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.	
<b>NAME OF SOLE OR FIRST INVENTOR :</b> <input type="checkbox"/> A petition has been filed for this unsigned inventor	
<b>Given Name</b> (first and middle [if any]) Martin J.	<b>Family Name</b> or Surname Murphy
<b>Inventor's Signature</b> <i>Martin J. Murphy</i>	
<b>Date</b> 2-12-02	
<b>Residence: City</b> Tucson	<b>State</b> AZ
<b>Country</b> USA	<b>Citizenship</b> USA
<b>Mailing Address</b> 2705 E. Medina Road	
<b>City</b> Tucson	<b>State</b> AZ
<b>ZIP</b> 85706	<b>Country</b> USA
<b>NAME OF SECOND INVENTOR:</b> <input type="checkbox"/> A petition has been filed for this unsigned inventor	
<b>Given Name</b> (first and middle [if any]) Kenneth L.	<b>Family Name</b> or Surname Cummins
<b>Inventor's Signature</b> <i>Kenneth L. Cummins</i>	
<b>Date</b> 2/12/02	
<b>Residence: City</b> Tucson	<b>State</b> AZ
<b>Country</b> USA	<b>Citizenship</b> USA
<b>Mailing Address</b> 2705 E. Medina Road	
<b>City</b> Tucson	<b>State</b> AZ
<b>ZIP</b> 85706	<b>Country</b> USA
<input checked="" type="checkbox"/> Additional inventors are being named on the <u>1</u> supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.	

Please type a plus sign (+) inside this box → ☐

PTO/SB/02A (11-00)

Approved for use through 10/31/2002. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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## DECLARATION

ADDITIONAL INVENTOR(S)  
Supplemental Sheet  
Page 3 of 3

Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Albert E.		Pifer	
Inventor's Signature <i>Albert E. Pifer</i>		Date <i>2-12-02</i>	
Residence: City	Tucson	State	AZ
Country	USA	Citizenship	USA
Mailing Address 2705 E. Medina Road			
Mailing Address			
City	Tucson	State	AZ
ZIP	85706	Country	USA
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Inventor's Signature		Date	
Residence: City		State	
Country		Citizenship	
Mailing Address			
Mailing Address			
City		State	
ZIP		Country	
Name of Additional Joint Inventor, if any:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle [if any])		Family Name or Surname	
Inventor's Signature		Date	
Residence: City		State	
Country		Citizenship	
Mailing Address			
Mailing Address			
City		State	
ZIP		Country	

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**STATEMENT UNDER 37 CFR 3.73(b)**Applicant/Patent Owner: Martin J. Murphy, Kenneth L. Cummins and Albur E. Pifer

Application No./Patent No.: \_\_\_\_\_ Filed/Issue Date: \_\_\_\_\_

Entitled: Lightning Detection and Data Acquisition System

Global Atmospherics, Inc. \_\_\_\_\_, a \_\_\_\_\_ corporation of Arizona

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title and interest.  
The extent (by, percentage) of its ownership interest is \_\_\_\_\_ %

in the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

- ☐ Copies of assignments or other documents in the chain of title are attached.  
**[NOTE:** A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

February 12, 2002  
Date

Kenneth L. Cummins

Typed or printed name

Kenneth L. Cummins  
Signature  
Vice President  
Research and Development

Title